**How Do the Tables Change?** Name:

Rodriguez/Adv Alg

**PART 1.**

Do the following for each:

* Describe:
  + how the x- and y-values increase/decrease/remain constant/etc.
  + any rapid or slow changes and how you can tell.
  + the overall rate of change (read the tables very carefully, as the x-values don’t always go up by 1).
* Predict how the graph would look WITHOUT actually making a graph. (The point is to visualize!)
  + Be sure to explain how the table’s change can be seen on the graph.

1.

|  |  |
| --- | --- |
| input (x) | output (y) |
| 0 | 0 |
| 1 | 5 |
| 2 | 20 |
| 3 | 45 |
| 4 | 80 |

2.

|  |  |
| --- | --- |
| input (x) | output (y) |
| 0 | -7 |
| 1 | -4 |
| 2 | 1 |
| 3 | 2 |
| 4 | 5 |

3.

|  |  |
| --- | --- |
| input (x) | output (y) |
| 0 | -25 |
| 1 | -24 |
| 2 | -21 |
| 3 | -16 |
| 4 | -9 |

4.

|  |  |
| --- | --- |
| input (x) | output (y) |
| 0 | 3 |
| 1 | 4 |
| 2 | 11 |
| 3 | 30 |
| 4 | 67 |
| 5 | 128 |

5.

|  |  |
| --- | --- |
| input (x) | output (y) |
| 0 | 1 |
| 5 | 14 |
| 13 | 17 |
| 21 | 45 |
| 40 | 57 |

6.

|  |  |
| --- | --- |
| input (x) | output (y) |
| -2 | -5 |
| 1 | 10 |
| 9 | 40 |
| 12 | 90 |
| 16 | 91 |
| 80 | 91 |

**PART 2**.

Summarize on the back of this page:

* How can you “see” change in a table? What do you need to analyze first? What’s the most important thing to look at?
* How can you tell fast, slow, moderate, etc. change in a table? What do you need to look at to determine the “rate” of change?
* How does the spacing of the x- or y-values influence the change?
* How can you predict how a table’s graph will look? What do you need to consider when you visualize it?
* Provide 1 example each of a table with slow change, moderate change, and rapid change. These tables must be your own work—do not use one from part 1 of this activity.
* For each table you just created, predict the graph and explain why you drew it that way.